Please find below and/or attached an Office communication concerning this application or proceeding.

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☐  Responsive to communication(s) filed on _____ .

2a)☐  This action is **FINAL**.          2b)☒  This action is non-final.

3)☐  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒  Claim(s) *1-21* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐  Claim(s) _____ is/are allowed.

6)☒  Claim(s) *1-21* is/are rejected.

7)☐  Claim(s) _____ is/are objected to.

8)☐  Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☒  The specification is objected to by the Examiner.

10)☐  The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐  The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

   If approved, corrected drawings are required in reply to this Office action.

12)☐  The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13)☐  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All  b)☐ Some * c)☐ None of:

   1.☐  Certified copies of the priority documents have been received.

   2.☐  Certified copies of the priority documents have been received in Application No. _____ .

   3.☐  Copies of the certified copies of the priority documents have been received in this National Stage
   application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

14)☐  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

   a) ☐ The translation of the foreign language provisional application has been received.

15)☐  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *3* .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:          .

# DETAILED ACTION

## *Specification*

The disclosure is objected to because of the following informalities:

-   The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The following title is suggested: "**Computer Resource Management for Competing Processes.**"

-   Grammatical error on page 3, line 25 of the Specification: "**effecting**" should be replaced with "**affecting.**"

Appropriate correction is required.

## *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1.    Claims 1, 10, 11, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chorn (US 6,275,843), in view of Abe (US 6,052,695), and in further view of Simor (US 5,060,150).

Referring to claims 1, 10, 11 and 17, Chorn discloses the following system:

- A **resource manager** operable to control the allocation of a resource to competing computing processes ("**Resource Manager** provides access to a resource", col 7, lines 8-10, Figure 1, 16 and 36).

- The **resource manager** responds to **identification of a thread** for a **first process requesting resource allocation** ("**thread identifiers**" used to "**manage its resources for the processing**", col 14, lines 36-43, and "**first service request**", Fig 4, 102, and col 9, lines 50-54);

Chorn fails to explicitly teach a joining function that notifies a resource manger on termination of thread for second process. However, Abe teaches this limitation in column 27, lines 40-47). In there he teaches of returning the output completion notification of the second thread. When this notification is received, the second log processing thread (65-M) terminates its own processing. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include this feature to the existing system of Chorn for the reason of increasing control by knowing when an existing thread is finished processing so that a new one can start processing.

Chorn also fails to teach that after termination of thread for a second process, the resource of the first process is allocated. However, Simor discloses a "Process Termination Monitor" that allows for resource allocation after the process has been terminated (col 17, lines 55-62). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include this resource allocation feature to the existing system for the reason of being able to distribute resources to various locations.

2.     Claims 2-7 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chorn (US 6,275,843) in view of Abe (US 6,052,695), in further view of Simor (US 5,060,150), and in further view of Hoffpauir (US H1,896).

Referring to claim 2, Chorn in view of Abe fails to explicitly teach a **resource manager** comprising an **object-oriented** computer **software** operable in an object-oriented environment. However, Hoffpauir teaches that a **"resource manager application 58 is preferably implemented in software** using **object-oriented programming"** (col 13, lines 8-11). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include using object-oriented software to the existing combination system for the reason of increasing the efficiency of code from reusability benefits of object orientation.

Referring to claim 3, Chorn in view of Abe fails to explicitly teach the processes having **software applications** operable in the **objected oriented** environment. However, Hoffpauir teaches having "various **software processes or applications** that include software **objects"** (col 9, lines 1-5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the feature of having software applications operable in the objected oriented environment to the existing combination system for the reason of increasing the efficiency of code from reusability benefits of object orientation.

Referring to claims 4 and 5, the reference of Hoffpauir teaches that "**various computer software objects** may be developed using virtually **any computer programming language** but will **preferably** be developed using a computer language designed for **object oriented programming** such as C++ and **JAVA**" (col 11, lines 50-55). Hoffpauir also teaches using a single object or bean object with the resource manager ("**resource manager** provides a proxy object for each object or application", col 13, lines 12-22). It would be obvious to use more than one object with the resource manager because it gives more opportunities for object orientation. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the feature of comprising one or more objects registrable with the resource manager and in the JAVA language to the existing combination system for the reason of increasing the efficiency of code from the reusability benefits of object orientation.

Referring to claim 6, Hoffpauir teaches an "**object**" (90) **acquiring** "clients" such as a "**configuration management server** 72, the **fault management server** 74, the **performance management server** 76, **accounting management server** 78 and the **system management server** 82" (col 21, lines 36-43).

Referring to claims 7 and 18, it is rejected for the same reasons as stated in the rejection of claim 5 from above.

3.      Claim 8, 9, 12-15, and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Chorn (US 6,275,843) in view of Abe (US 6,052,695), in further view of Simor (US

5,060,150), and in further view of Hoffpauir (H1,918).


Referring to claims 8, 12 and 19, Chorn in view of Abe fails to explicitly teach a

**resource manager** operable to control access by a **plurality of telecommunications**

**applications** to a **telephony device** in a telecommunications apparatus.  However, Hoffpauir

teaches a "resource manager" which controls access to a **plurality of telecommunications**

**applications** such as a **switching module** (Fig 2, 64), a **telephony support module** 66, a **signal**

**processing module** 68 and an **interface module** 62, where each of these modules preferably

includes software and communicates with the **resource manager** application of the call

processor 40" – connected to a telephony device 22 (col 19, lines 58-63).  Therefore, it would

have been obvious to one of ordinary skill in the art at the time the invention was made to

include the feature of control access by a plurality of telecommunications applications to a

telephony device to the existing combination system for the reason of increasing functionality

with telecommunication abilities.


Referring to claim 9, the reference of Abe discloses a mechanism for controlling

"**dispatching commands**" to a "**signal transmission network**" (Fig 1 and col 9, lines 48-63).


Referring to claims 13 and 20, Chorn in view of Abe fails to explicitly teach using a

telephony resource as an **interface** to the **telecommunication network**.  However, Hoffpauir

discloses a "**signaling application**" which "**performs various functions and provides** user **interfaces** associated with various parts and **protocols**" (col 13, lines 39-43). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the interface feature to the existing combination system for the reason of increasing the control by improving communication.

Referring to claims 14 and 21, Hoffpuir discloses "**providing a modem to enable communication**" for the **telephony system**, col 12, lines 24-30).

Referring to claim 15, Hoffpuir discloses a "**call processing application**" 54 from the call processor (col 13, lines 16-21).

4.      Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chorn (US 6,275,843) in view of Abe (US 6,052,695), in further view of Simor (US 5,060,150), in further view of Hoffpuir (H1,918), and further in view of Jones (US 5,193,110).

Referring to claim 16, the existing system fails to explicitly teach the following:
-    a **call answering** application;
-    a **voicemail** application;
-    a **facsimile** application; and
-    a **data** application.

However, Jones discloses a "**call answering**" service (col 20, lines 56-59), a "**voice mail message service**" (col 1, lines 15-24), a "**facsimile processing service**" ( col 1, lines 15-24), and a "**data**" from an application or "**data acquisition**" (col 20, lines 1-6). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine these features to the existing combination system for the reason of increasing functionality of the system by adding more communication means.

## *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth Tang whose telephone number is (703) 305-5334. The examiner can normally be reached on 8:30am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alvin Oberley can be reached on (703)305-9716. The fax phone numbers for the organization where this application or proceeding is assigned are none for regular communications and none for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is none.

kt
August 22, 2002

BANANKHAH
PRIMARY EXAMINER